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ABSTRACT

As stipulated by the Individuals with Disabilities Education Act (IDEA) of 1990, instruction in physical education is a direct service that must be provided to children and youth with disabilities who are between the ages of 3 and 21 years. This study was conducted to assess the relationship between preservice physical education teacher attributes (age, adapted physical education (APE) courses, year in school, special education courses, experience, practicum, educational preparation, and certification level) and attitudes toward teaching students classified as behaviorally disordered, mildly mentally retarded, and learning disabled. Subjects, preservice undergraduate physical education teaching majors (N=399) who were enrolled in an introductory APE course, completed the Physical Educators' Attitude Toward Teaching the Handicapped II (PEATH II). Results are presented under three general headings: (1) subject characteristics; (3) professional preparation regarding individuals with disabilities, and (3) rating of quality of professional preparation. Based on the sample, it was concluded that preservice physical education teachers with favorable attitudes believed themselves to be very competent and rated their educational preparation as high in relation to teaching students with disabilities. A sample of the PEATH II is appended. (Contains 29 references.) (LL)

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Preservice Physical Education Teacher Attributes Associated with Positive Attitudes Toward Students with Mild Disabilities

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Abstract

The purpose of this study was to assess the relationship between preservice physical education teacher attributes (age, adapted physical education {APE} courses, year in school, special education courses, experience, practicum, educational preparation, and certification level) and attitudes toward teaching students classified as behaviorally disordered, mildly mentally retarded, and learning disabled. Currently enrolled in the introductory APE course, physical education teaching majors ($N = 399$) from 29 colleges and universities in the nine states comprising Central District AAHPERD, which offered both a physical education teaching major and an introductory APE course, completed the *PEATH–II—Preservice Revision [PS]* (Rizzo, 1988) during the last two weeks of the semester or quarter. All institutions meeting criteria were given the opportunity to participate. Data were collected during the 1992–1993 academic year. In this study, reliability for *PEATH–II—PS* was .87. Using a 5–point Likert scale to assess attitudes, results showed that preservice teachers held a positive attitude ($M = 3.56$, $SD = .40$) toward teaching students with the three disabilities. Although the proportion of variance accounted for by significant attributes was small, results of a forward stepwise multiple regression analysis indicated that perceived competence [$R = .27$, $R^2 = .07$, $F\ (1, 337) = 25.78$, $p < .001$] and educational preparation [$R = .30$, $R^2 = .09$, $F\ (2, 336) = 16.10$, $p < .001$], were the best predictors of positive attitudes. For teaching students with mild disabilities, preservice teachers with favorable attitudes believed themselves to be very competent and rated their educational preparation as high.

Preservice Physical Education Teacher Attributes Associated with Positive Attitudes Toward Students with Mild Disabilities

As stipulated by the rules and regulations of Public Law (PL) 94–142, (U.S. Department of Education, 1977) and its recent reauthorization, Individuals with Disabilities Education Act of 1990 (IDEA), instruction in physical education is a direct service that must be provided to children and youth with disabilities who are between the ages of 3 and 21 years. In fact, physical education is the only subject–matter area specifically mentioned in the mandates, although classroom and home instruction are included. Therefore, one of the purposes of the federal mandates is to ensure that all students receive appropriate instruction in physical education.

IDEA has also mandated that students with disabilities be educated in the least restrictive environment, which is the regular classroom whenever feasible. When regular class placement is not appropriate for the student with a disability, alternative placements on a service delivery continuum are to be considered. Traditionally, the regular physical educator has provided instruction for students with mild and moderate disabilities and the adapted physical education specialist for students with more severe disabilities. Physical education, art, and music are three curricular areas in which students with disabilities are often integrated with their nondisabled peers.

Based on results reported in the research literature regarding preservice training of physical education teachers, it is evident that physical education teachers have not been adequately prepared to teach students with disabilities integrated into their regular classes (Craft, Santomier, Hogan, & Wughalter, 1985; Dummer & Davis, 1985; Folsom–Meek, 1988; Folsom–Meek, Bernard, & Mull, 1989; Marston & Leslie, 1983; Oakley,

1985). This poor preparation may account for children and youth with disabilities not receiving effective, let alone, adequate instruction.

The attitude of the physical education teacher toward students with disabilities is one of the most important variables contributing toward the success of these students in regular physical education classes. Excluding speech/language impairments, the most prevalent categories of disabilities in the public schools are mild mental retardation, learning disabilities, and serious emotional disturbance (Sherrill, 1993). Students labeled with one of these conditions are very likely to be integrated into regular physical education classes.

Results of previous research have demonstrated that the attitude of physical education teacher toward students with disabilities is a key variable to the success of mainstreaming/inclusion (Craft, Santomier, Hogan, & Wughalter, 1985; Marston & Leslie, 1983). There is a growing knowledge base in the special and physical education literature regarding teacher attitudes toward students with disabilities. Early research examined teacher attitudes toward students with generic physical and learning–type disabilities (Rizzo, 1984). More recently, physical education researchers have examined the hierarchy of teacher attitudes toward specific disabilities (Block & Rizzo, 1993; Folsom–Meek, 1991; Rizzo, Snell, & Courtney, 1988; Rizzo & Block, 1993; Rizzo & Vispoel, 1991; Rizzo & Wright, 1988).

Recent research has examined not only attitudes toward students with disabilities but also attributes associated with these attitudes. In a series of studies examining attribute variables of physical education teachers as predictors of attitudes, the following variables were significant predictors of attitudes toward teaching students with disabilities: (a) coursework on

students with disabilities taken outside physical education (Rizzo, 1985, (b) age of teachers (Rizzo, 1985), and (c) perceived competence (Rizzo & Wright, 1988; Rizzo & Vispoel, 1991).

Prior research with physical education teachers has yielded rather discouraging results, which are difficult to change. For this reason, current research should examine preservice physical education teachers. Although there is an increasing body of knowledge regarding physical education teachers' attitudes toward students with disabilities, there is a paucity of large–scale studies examining the relationships between preservice physical education teachers attributes and attitudes toward individuals with disabilities. Rizzo's (1993) sample included 174 undergraduate physical education majors who were enrolled in physical education courses. Two attribute variables, perceived competence and coursework about special populations, were significant predictors of undergraduate physical education majors' attitudes toward students with specific disabilities including behaviorally disordered, mildly mentally retarded, and learning disabled.

The problem of this study was to examine relationships between attitudes toward teaching students with mild disabilities and selected attributes. The purpose of the study was to assess the relationship between preservice physical education teacher attributes (age, adapted physical education {APE} courses, year in school, special education courses, experience, practicum, educational preparation, and certification level) and attitudes toward teaching students classified as behaviorally disordered, mildly mentally retarded, and learning disabled.

Method

Subjects

Sampling procedures began with locating all possible colleges and universities with physical education teaching majors in Central District Association for Health, Physical Education, Recreation and Dance (AAHPERD). Two primary resources were used to locate potential institutions of higher education—*Physical Education Gold Book 1987–1989* (Human Kinetics, 1987) and *1992–1993 National Directory Of College Athletics* (Collegiate Directories, 1992). Nine states comprise Central District AAHPERD and include the following: Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming.

After obtaining all possible institutions, the investigators mailed correspondence soliciting participation and detailing criteria of the study to the instructor of the introductory adapted physical education (APE) course at all institutions. Criteria were that the institution offered a physical education teaching major and that an introductory APE course was offered during the data collection period. Respondents indicated whether their institution met criteria and if they wanted their class to participate. Follow–up letters were mailed to institutions not responding to initial mailings. Surveys were then sent to all college and university introductory APE course instructors who indicated that their classes would participate.

Subjects, preservice undergraduate physical education teaching majors who were enrolled in the introductory APE course, completed the surveys during last two weeks of the semester or quarter. Informed consent was obtained for all subjects according to institutional guidelines. Data were collected during the 1992–1993 academic year. At least one institution of

higher education from each of the nine states in Central District AAHPERD participated in this study. Subjects (N = 399) represented 29 colleges and universities. Of the 399 subjects, 132 (33.1%) were females and 265 (66.4%) were males. Missing cases accounted for the .6%.

Instrumentation

The instrument used for the study was *Physical Educators' Attitude Toward Teaching the Handicapped II [PEATH II]* (Rizzo, 1986). It was modified for preservice teachers participating in this study *[PEATH II—Preservice Revision (PS)]*. See Figure 1 for sample of the *PEATH II—PS.*

Insert Figure 1 about here

A concern of the researchers was that the instrument did not reflect current recommended terminology. Although the title of the survey could not be changed, the statements within it were modified to reflect current recommended terminology, i.e., person–first terminology and disability instead of handicapped. The following statement was added to the instrument: "The *PEATH II* was devised prior to the passage of PL 101–476 *(Individuals with Disabilities Education Act,*or *IDEA)* in 1990. Use of the term handicapped in the title of the *PEATH II* does not not reflect currently recommended terminology—the term disability replacing handicapped."

PEATH II—PS is divided into two sections: (a) 12 statements expressing beliefs about teaching students for each of the three aforementioned disabilities in regular physical education classes (36 item total), and (b) 15 demographic and descriptive questions. The statements expressing beliefs and attitudes are rated using a 5–point Likert scale (1 =

strongly disagree through 5 = strongly agree). Statements are phrased positively and negatively; the range of possible scores is 36 through 180. To interpret data according to Likert scale values, raw scores were transformed to scale scores by dividing the total score by 36. For this study, reliability of total scores of *PEATH II—PS* using coefficient alpha was .87.

Data Analyses

Statistical analyses for this study were descriptive statistics on total scores and forward stepwise multiple regression procedures. The independent variables included the following: (a) age, (b) number of courses taken in physical education pertaining to individuals with disabilities, (c) year in school, (d) number of courses taken outside of physical education pertaining to individuals with disabilities, (e) perceived competence in teaching students with disabilities, (f) if APE course requires experience with students with disabilities, (g) quality of educational preparation to teach students with disabilities, and (h) grade levels that will be certified to teach. Because subjects without experience being around or working with individuals with disabilities could not respond to some of the questions, the following independent variables were not included in the regression analysis: (a) amount of experience being around/working with individuals with disabilities, (b) number of hours spent around individuals with disabilities, (c) category of disabling conditions with which they had had experience, and (d) rating their overall experience. For the regression procedure, the dependent variable was the total attitude score.

Results

Descriptive statistics are presented under three general headings: (a) general subject characteristics, (b) professional preparation regarding individuals with disabilities, and (c) rating of quality of professional preparation.

General Subject Characteristics

The mean age of the subjects in this study was 22.9 yrs. (± 3.31). The majority (55.4%) indicated that they were seniors; the next greatest level (22.3%) represented junior status, and the least represented was freshman status with less than 1%. The greatest proportion of subjects (70.4%) indicated that they will be certified to teach physical education in grades K through 12.

Professional Preparation Regarding Individuals with Disabilities

Subjects were asked to identify the number of courses taken in physical education and in other disciplines, pertaining to knowledge of individuals with disabilities. With respect to courses taken within the physical education discipline, subjects indicated that they had taken a mean of 1.57 courses (± 1.0), whereas results indicated that they had taken less than one course in other disciplines ($\underline{M}$ = .81; ± 2.11). In addition, subjects were asked if they had had experience being around and/or worked with individuals with disabilities. Eighty–one percent indicated that they had had experience.

When those who indicated having had experience, they were requested to identify the category depicting the range of hours. These categories included: (a) none, (b) fewer than 25 hours, (c) 25 through 50 hours, (d) 51 through 75 hours, and (e) 76 through 100 hours. That category selected with the greatest percentage (43%) was fewer than 25 hours. When the

upper two categories (51 through 75 and 76 through 100 hours) were collapsed, 19% of the subjects indicated involvement with individuals with disabilities. Thirteen percent indicated no experience at all. When asked if their introductory APE course required practical experience with individuals with disabilities, over half (56.4%) indicated "yes", whereas 37.8% indicated "no." Subjects who indicated experience with individuals with disabilities were asked to rate their overall experience. Categories included the following: (a) not good, (b) satisfactory, (c) very good, and (d) outstanding. The category with the largest percentage was "very good" (44%), followed by "satisfactory" with 25%.

Rating of Quality of Professional Preparation

Subjects were asked to rate their perceived competence in teaching students with disabilities according to the following categories: (a) not at all, (b) somewhat, and (c) very. The majority perceived themselves as being "somewhat competent" (71.9%) in teaching students with disabilities, whereas 9.3% felt "not at all" competent, and 16% responded "very competent."

In terms of teaching students with disabilities, subjects were asked to rate their educational preparation overall experience using the categories of: (a) not good, (b) satisfactory, (c) very good, and (d) outstanding. The percentages were 9.3%, 47.6%, 34.8%, and 3.3%, respectively.

Dependent Variable

The dependent variable for the forward stepwise multiple regression analysis was the total attitude score. Descriptive statistics were computed for both raw and scale (transformed) scores. For raw scores, the mean was 128.01 ($\pm$ 14.42 with a range of 79). For scale scores, the mean was 3.56 ($\pm$ .40 with a range of 4). Results of forward stepwise multiple regression analysis indicated that the best predictors of positive attitudes

were perceived competence [$R = .27$; $R^2 = .07$; $F (1, 337) = 25.78$; $p < .0001$] and educational preparation [$R = .30$; $R^2 = .09$; $F (2, 336) = 16.10$; $p < .0001$]. Although perceived competence and educational preparation were significant predictors, only 9% of the variance can be explained by these two variables. Other variables, either not identified or those that might emerge with another sample, might contribute to somewhat different predictions with other samples of preservice physical education teaching majors. Based on the sample included in this study ($N = 399$), it can be concluded that preservice physical education teachers with favorable attitudes believed themselves to be very competent and rated their educational preparation as high in relation to teaching students with disabilities.

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Figure 1. Sample of *Peath II–PS*

Physical Educators' Attitude Toward Teaching Students with Handicaps–II

(Terry L. Rizzo, 1986)

[Preservice Revision (Folsom–Meek & Nearing, 1992)]

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Note: The *PEATH–II* was devised prior to the passage of PL 101–476 (*Individuals with Disabilities Education Act*, or *IDEA*) in 1990. Use of the term handicapped in the title of the *PEATH–II* does not reflect currently recommended terminology—the term disability replacing handicapped.

Please circle the response which best corresponds to your agreement with each statement for each labeled disabling condition.

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KEY

SD = Strongly disagree SA = Strongly agree

D = Disagree U = Undecided A = Agree

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EXAMPLE OF NEGATIVELY PHRASED QUESTION:

Students labeled _____ should not be taught in my regular physical education classes with nondisabled students because they will require too much of my time.

28. behaviorally disordered	SD	D	U	A	SA
29. mildly mentally retarded	SD	D	U	A	SA
30. learning disabled	SD	D	U	A	SA

EXAMPLE OF POSITIVELY PHRASED QUESTION:

Students labeled _____ should be taught with nondisabled students in my regular physical education classes whenever possible.

34. behaviorally disordered	SD	D	U	A	SA
35. mildly mentally retarded	SD	D	U	A	SA
36. learning disabled	SD	D	U	A	SA